

April already wettest in a century

Description

This [April is the wettest in the UK](#) in records which date back to 1910, according to early Met Office figures up to the 29th of the month.

Further rain is to come overnight tonight as outbreaks of heavy and possibly thundery rain affect southern England and Wales, so final rainfall figures for the month will change.

However, the UK has already seen 121.8mm of rain so far – significantly more than the 69.6mm you would normally expect for the month and beating the previous record of 120.3mm set in 2000.

Read more on the [Met Office website](#).

Date Created

April 2012

Wet and windy weekend

Description

Large parts of the UK have seen very wet and windy conditions over the weekend.

Winds have gusted up to about 70mph in the most exposed locations, with many parts of the country seeing gusts of 40-50mph.

The strongest gust (at a non-mountain site) was 71mph at Mumbles Head in West Glamorgan, Berry Head in Devon was just behind with 70mph.

Leek, Thorncliffe in Staffordshire saw 68mph, Avonmouth in Avon saw 61mph, and two locations on the Isle of Wight also saw 60mph.

Persistent and heavy rainfall has also been widespread across a large part of the country, with some areas seeing a significant proportion of their normal monthly average within a 24-hour period.

The heaviest rainfall has been focused on southern England with Liscombe in Somerset seeing the most rainfall so far, with 48.8mm falling between 1pm on Saturday, 28 April and 6pm today, 29 April.

Hampstead in Greater London saw 39.2mm of rain during the same period, with Wiggonholt in West Sussex seeing 32.4mm and Rothamstead in Hertfordshire seeing 29.8mm. Several other stations across the south saw rainfall at a similar level.

Other parts of the country, particularly in the far north, have seen very little or no rain at all, however.

Looking ahead, there are Severe Weather Warnings in place for both Monday and Tuesday in parts of the UK, so we'd advise people to stay up to date with the latest [forecasts](#) and [warnings](#) on our website.

The [Environment Agency](#) has also issued many [Flood Warnings and Alerts](#) – you can stay up to date with the latest information via their website.

Date Created

April 2012

April 2012 early statistics – above average rainfall

Description

These are early figures covering 1 – 25 of April and not full month statistics, so are therefore very likely to change. Especially regarding ranking. Full month figures will not be available until provisionally Wednesday 2 May.

Figures for 1 – 25 April show the month so far has seen well above average rainfall across the UK, with 97 mm of rain recorded – this is 139% of the long-term monthly average (1971-2000). The wettest April in the records dating back to 1910 was 2000 which saw 120.3 mm of rain.

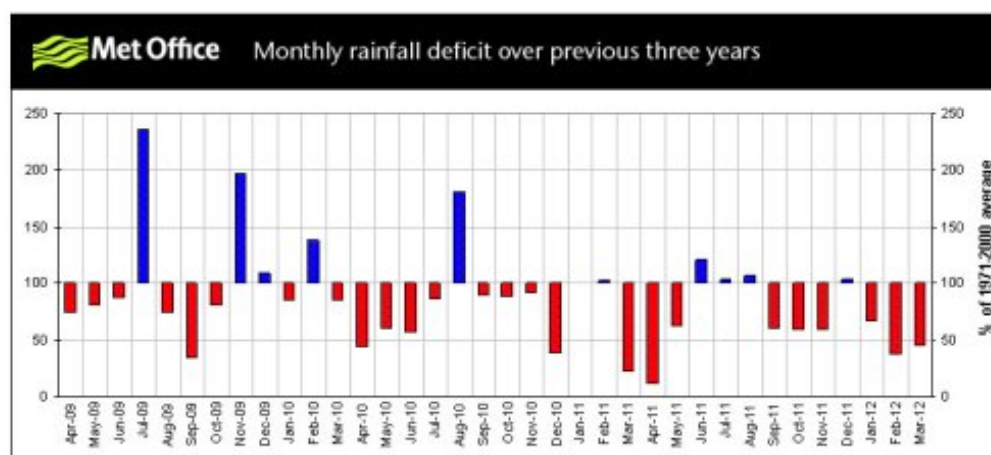
Currently the month is the 9th wettest April for the UK in the records. However, it's not possible to say where the month will end up in the records until all the figures are in at the end of the month – especially as we are expecting heavy rain on Sunday.

Some areas have seen significant rainfall amounts with some parts of the UK already having had more than double their monthly average. Some station records are also very likely to be broken.

Impact on drought

Looking at the England South area, which has been the focus of the [current drought](#), this month is one of only three in the last two years which has seen significantly above average rainfall.

As can be seen from the chart below, the majority of other months during that time have seen below average rainfall.



Monthly rainfall anomalies for region England south for the last 3 years. 13 of the last 24 months have seen less than 75% of average rainfall, and 6 months have seen less than 50%. Only 2 months - June 2011 and August 2010, have been significantly wetter than average.

Trevor Bishop, Head of Water Resources at the Environment Agency, said: “it’s going to take more than a week or two of rain to undo the effects of nearly two years of below average rainfall.

“More rain now will really help us get through the summer, and is good for the environment, farmers and gardeners, but it’s very unlikely to be enough to recharge the groundwater.”

Duller and slightly cooler than average

Temperatures have been close to the average for the time of year, despite some cold nights towards the beginning of the month which brought frosts to many areas.

Sunshine hours have been slightly down on the average so far this month, with most parts of the country seeing only about two thirds to three quarters of the average expected in the month. However, this could improve during the final few days of April.

Why the unsettled weather this month?

The position of the jet stream has been one key contributing factor, but potentially not the only one. You can read more about this on [our blog post](#).

Date Created

April 2012

Sunny March, wet April – how the jet stream is (partly) to blame

Description

UPDATE: We've written a further post explaining a little more behind the continuing disappointing weather that we have seen through the summer so far. You can read this at [‘The UK's wet summer, the jet stream and climate change’](#)*

After an unusually dry, sunny and warm March, April has seen some very wet and unsettled weather with below average temperatures. So what has caused this about-turn in the UK's weather? There are many factors which can impact the notoriously changeable weather in the UK, so no single one on its own can be said to be fully responsible. However, it is possible to isolate contributing factors and, in this case, one of those is the northern hemisphere jet stream. This is a narrow band of fast flowing westerly winds (ie blowing from west to east) in the high atmosphere. This band moves around and also changes its track, from a fairly straight line to something more closely resembling a meandering river. Its position can, and does impact weather in the UK and other parts of the northern hemisphere. In both March and April we have seen what we term a 'blocking pattern' in the jet stream, where it meanders north and south instead of making its more usual eastward progress. Despite this, March was the 3rd warmest and 5th driest March in the all-UK record going back to 1910, while April has so far been relatively cool with rainfall already 30% above the average for the whole month across England and Wales. So what is causing the difference? It comes down to the position of the blocking feature. In March, the meandering of the jet stream caused it to pass to the north of the UK – anchoring high surface pressure over the UK. This suppressed cloud, increased sunshine and temperatures, and prevented the usual rain-bearing Atlantic weather systems coming in from the west from reaching us. Soon after the start of April, however, the whole pattern moved westwards, so the peak of the northerly meander moved over the North Atlantic Ocean. The UK, in contrast, found itself under the adjacent southerly meander, with the jet stream passing to the south of the UK over France and Spain. This atmospheric set-up brings low surface pressure, cloud and rain. Because the pattern is still blocked, without a west-to-east jet stream to blow the weather system through, the low gets stuck over the UK, resulting in high rainfall totals overall. Like the weather, we can predict the path of the jet stream with a good deal of accuracy up to about five days ahead but it is more difficult to give detail on longer timescales. Therefore it's not possible to say exactly what the jet stream will be doing in a month's time, for example, or exactly how it will impact our weather. You can find out more about the [jet stream in our YouTube video](http://www.youtube.com/watch?v=GpsRQtk6lfM). <http://www.youtube.com/watch?v=GpsRQtk6lfM>

Date Created

April 2012

Description

The Met Office is over the moon to have made the 'Social Brands 100 shortlist' for the 2012 rankings. This comes on the back of winning the best use of social media within the public sector at the Computer Weekly Social Media Awards at the end of last year.

Date Created

April 2012

NASA Space Apps Challenge weekend

Description

Nick Skytland, Programme Manager for NASA Open Government Initiative, has opened the European lead event at the Met Office.



An initiative of the Open Government Partnership, the [International Space Apps Challenge](#) will showcase the impact that people working together around the world can have on addressing challenges, both on earth and in space.

60 developers, including Met Office employees, will now have the next two days to create, build, and invent new solutions in order to address challenges of global importance. Working together in small teams they will be using Open Government data resulting from space technology. Teams at the event will also be using our recently launched [DataPoint web service](#).

Nick Skytland said “It’s great to be here collaborating with the Met Office and all of the supporting organisations. The Met Office truly represents the future of using Open Data and Open Source to drive initiative across government.”

On Sunday, the teams will present their projects to a panel of judges. Judges at the Met Office are Charles Ewen, Head of Web at the Met Office, Sarah Weller, Marketing Manager at Mubaloo, Dr Nicolas Outram, Associate Professor, School of Computing and Mathematics at Plymouth University and Becky Maynard Head of International Fundraising and Communications for ShelterBox. Each location will then put forward two projects to determine the global winners.

Date Created

April 2012

Guest blog: It's raining – why have we still got a drought?

Description

Trevor Bishop is Head of Water Resources at the Environment Agency. Here he explains why, despite the rain, we are still in a drought.

In true bank holiday spirit the weather turned wet for the Easter holidays and it doesn't seem to have stopped since. So is there still a drought? The answer is yes – it's going to take more than a week or two of rain to undo the effects of nearly two years of below average rainfall. The recent rain is good for farmers and gardeners, and the cool temperatures ease the pressure on fish and wildlife in rivers. But with dry soils most of the rain will be soaked up – or, worse still, run off quickly if the surface is compacted, causing flash floods. But it won't reach down far enough to top up groundwater, which is what we really need.



More rain now will really help us get through the summer, and is good for the environment, farmers and gardeners, but it's very unlikely to be enough to recharge the groundwater. As we move from spring to summer, most of the rain that falls is either evaporated as temperatures rise or taken up by plants as they grow.

You can keep up to date with the water situation [here](#). This shows that while river flows have recently risen in western and northern England and in Wales, groundwater and rivers in the south and east remain exceptionally low for this time of year. Much of our tap water in the south east comes from groundwater so it's still important we use less water, even when it's raining.

Date Created

April 2012

Met Office in the Media: 19 April 2012

Description

The wet weather across parts of the UK at the moment has generated comments about how wet this April as a whole may pan out in the record books. As we have said in blogs previously, it is just too early when we are still only mid month to make any assessment about how the month as a whole may compare to previous months in history.

Today the [Daily Telegraph](#) reported that the 'the wet weather will continue to the end of this month, including floods and storms, according to the Met Office, potentially making it one of the wettest April's on record.' Although our outlook does suggest that the rather unsettled conditions are likely to continue through the rest of the month, we have not made any assessment on whether it is likely to be one of the wettest April's on record.

Looking at the latest figures available, the UK has seen around 60% of its normal April rainfall, or 41.7mm up to the 15th of April. At this point of the month we would normally expect about 50% of the months rainfall so rainfall amounts so far have not been far from what you could typically expect. On average, a typical April would see 69.6 mm or rain.

The Daily Express has today run with a headline that we are expecting the '[Coldest May for 100 Years](#)'. This forecast has not come from the Met Office, but from an independent forecaster. Currently our [16 to 30 day forecast](#) which takes in the first half of May says:

"The start of May looks likely to remain unsettled with a continuation of showers or longer spells of rain, although there should also be some drier and brighter interludes. Temperatures will generally be close to or slightly above the seasonal average. Later in the first week of May, conditions may turn more settled across southern England for a time, with a greater chance of some drier and sunnier weather than of late. Further north, it looks likely to stay unsettled with further rain at times, particularly across northwest England as well as northern and western parts of Scotland."

Date Created

April 2012

NASA Space Apps Challenge – Growers Nation

Description

This weekend will see the Met Office linking up with sites across the world for the NASA International Space Apps Challenge.



Challenges from Met Office employees have been accepted, including Growers Nation submitted by Selena Georgiou a Radar Products Scientist.

Grower's Nation is an app to determine what produce to grow and when given the soil type and current seasonal conditions

This app aims to get more people around the world involved and enthusiastic about growing produce sustainably. This would be done by using the available space in their gardens, school or university grounds or work places that are not currently being used to their potential. This would be displayed on a map that enables people to see quickly and easily when the optimal time for planting seeds is in their local area, and what can be planted, dependent on local soil type.

The eventual aim is to make it an interactive app, with local produce growing enthusiasts contributing to a database of easily accessible and categorised tips and advice resulting from their gardening experiences.

The development of this app will make use of a range of data including climatology, short and longer term weather forecasts, soil type, soil moisture measurements and satellite derived evapotranspiration.

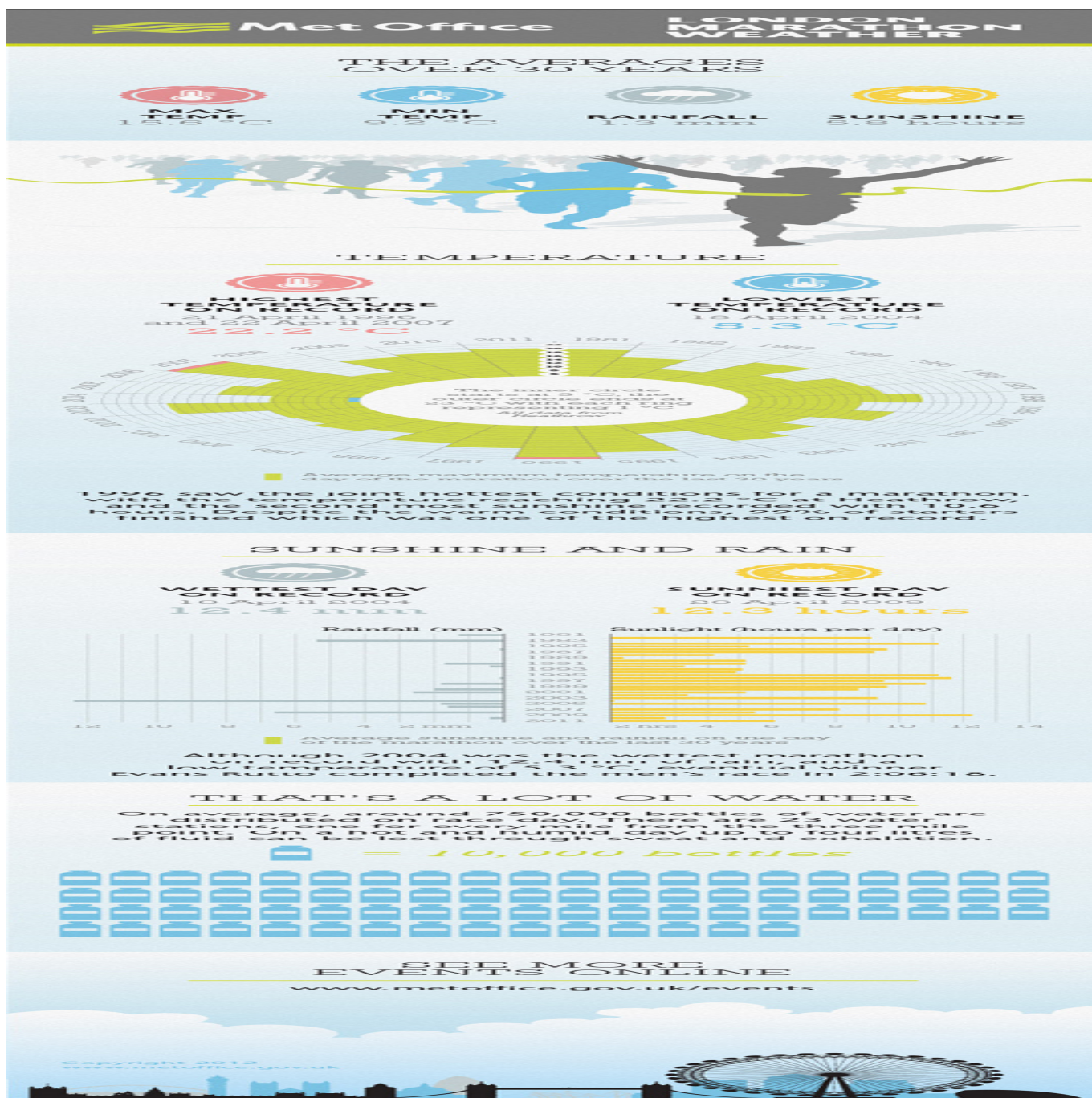
Date Created

April 2012

Infographic: London Marathon weather

Description

The full weather forecast for this Sunday's [London Marathon](#) is available on Wednesday, in the meantime we look back at the weather on previous marathon days.



View more [weather forecasts for events](#) on our website.

Date Created

April 2012

Met Office to host NASA Space Apps Challenge

Description

The NASA Space Apps Challenge is now just over a week away and the Met Office is hosting the lead event for Europe over the weekend of the 21st and 22nd April.



A number of challenges, presented by Met Office employees, have been accepted by the [International Space Apps Challenge](#) and are being followed by participants across the globe.

One of those accepted is the #HazardMap – Real time hazard mapping by scraping social media. This challenge was submitted by Jo Robbins, Weather Impact Research Scientist at the Met Office and Emma Bee, a Geographical Information Specialist who is on placement at the Met Office from the British Geological Survey.

Currently, gathering real-time, on the ground information of a hazard event such as a flood or earthquake as it happens is largely limited to the professional media. Even then it can take time for journalists to report the situation.

However, as was seen during the Japanese Earthquake in 2010, social media (Facebook, Twitter, YouTube, Flickr etc) was used extensively to gain situational awareness. Social media was also used by individuals affected by the disaster as a medium to tell their friends and family that they were safe.

The challenge for this project is to see if real-time information about hazard events can be harvested from social media, or other public data, and presented in such a way that is useful to professionals working within an operational hazard centre environment and the general public.

As well as using open government data, Teams at the [event](#) will also be using our recently launched [DataPoint web service](#). This gives access to operational UK weather data and observations as well as exploiting other open data sets available from the Met Office and other participating organisations.

Date Created

April 2012

Why are we getting thunder and lightning?

Description



Thunderstorms are normally associated with convective clouds which form from rising air warmed by the Sun. At this time of year we have longer days and therefore more heat reaches the Earth's surface giving a greater chance for convective clouds to form. The air is continuously moving within the cloud in a very disorderly fashion, allowing the cloud to grow and water droplets or ice crystals to form. Given enough time and growth, the cloud may develop into a Cumulonimbus cloud and give quite heavy bursts of rain or hail for short periods of time, and possibly thunder and lightning.

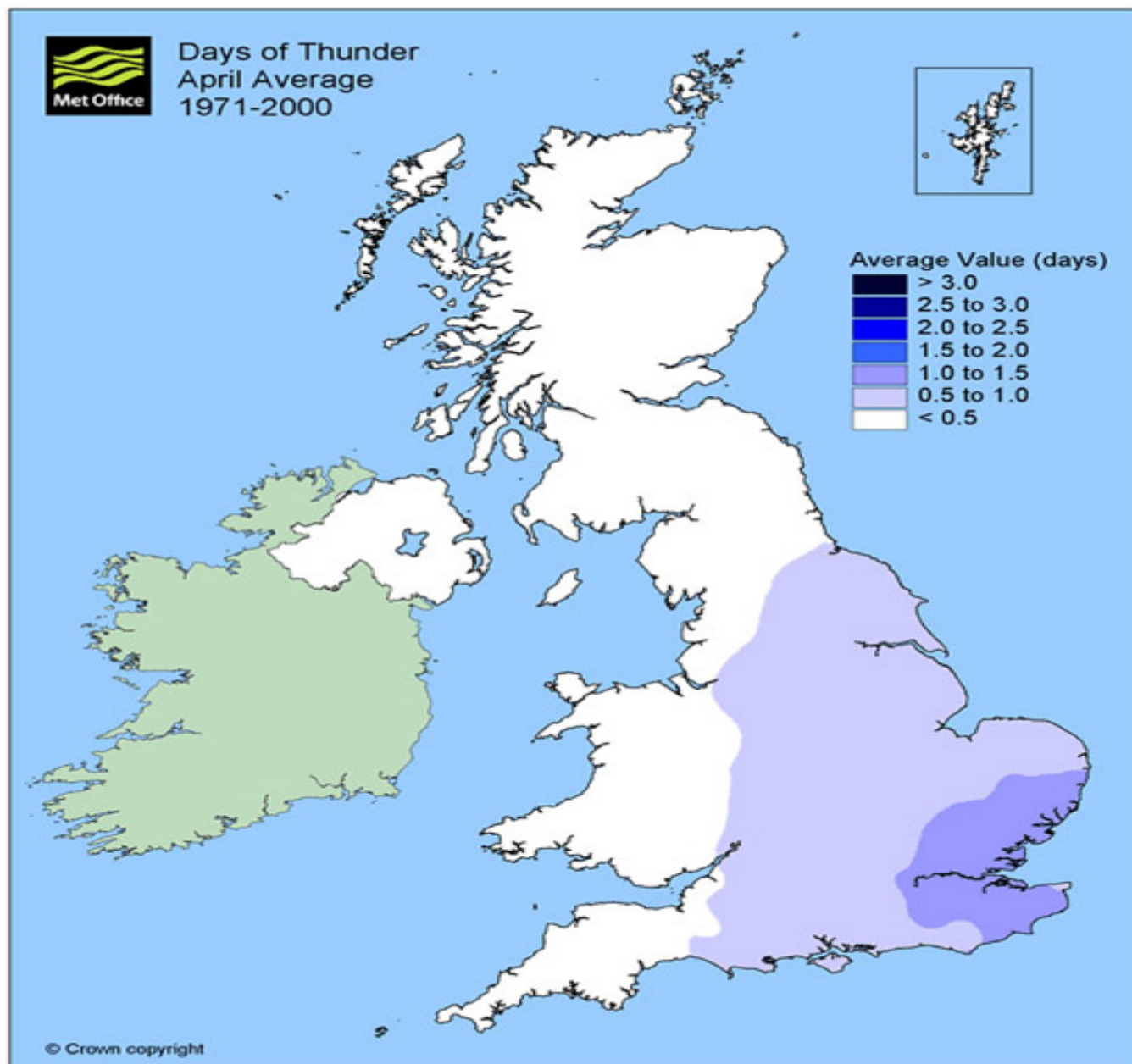
Hail forms when ice crystals or frozen raindrops within the cloud get thrown about with the rapidly circulating air. As they ascend they grow as water freezes on the surface of the droplet or crystal. Eventually the droplets will become too heavy to be supported by the updraughts of air and they fall to Earth as hail.

As hail moves through the cloud it picks up a negative charge as it rubs against smaller positively charged ice crystals. A negative charge collects at the bottom of the cloud where the heavy hail collects, while the lighter ice crystals remain near the top of the cloud and create a positive charge. The negative charge is attracted to the Earth's surface and other clouds and objects and when the attraction becomes too strong, the positive and negative charges come together, or discharge, to balance the difference in a flash of lightning. The rapid expansion and heating of air caused by lightning produces the accompanying loud clap of thunder.

Thunder and lightning facts:

- A bolt of lightning lasts on average for about one 10,000th of a second.
- The average speed at which the lightning cuts through the air is 270,000 mph.
- There are several types of lightning, the most common being “sheet lightning” in which the discharge of positive and negative charges occurs within the cloud.
- The risk of being struck by lightning is minimal and ninety percent of lightning travels from cloud to cloud. Lightning takes the shortest and quickest route to the ground, usually via a high object standing alone.
- The average annual frequency of lightning is less than 5 days in western coastal areas of the United Kingdom and over most of central and northern Scotland, and 15 to 20 days over the east Midlands and parts of southeast England

Get more facts from our [thunderstorms fact sheet](#).



See [lightning observations for the last three hours on our observations map](#).

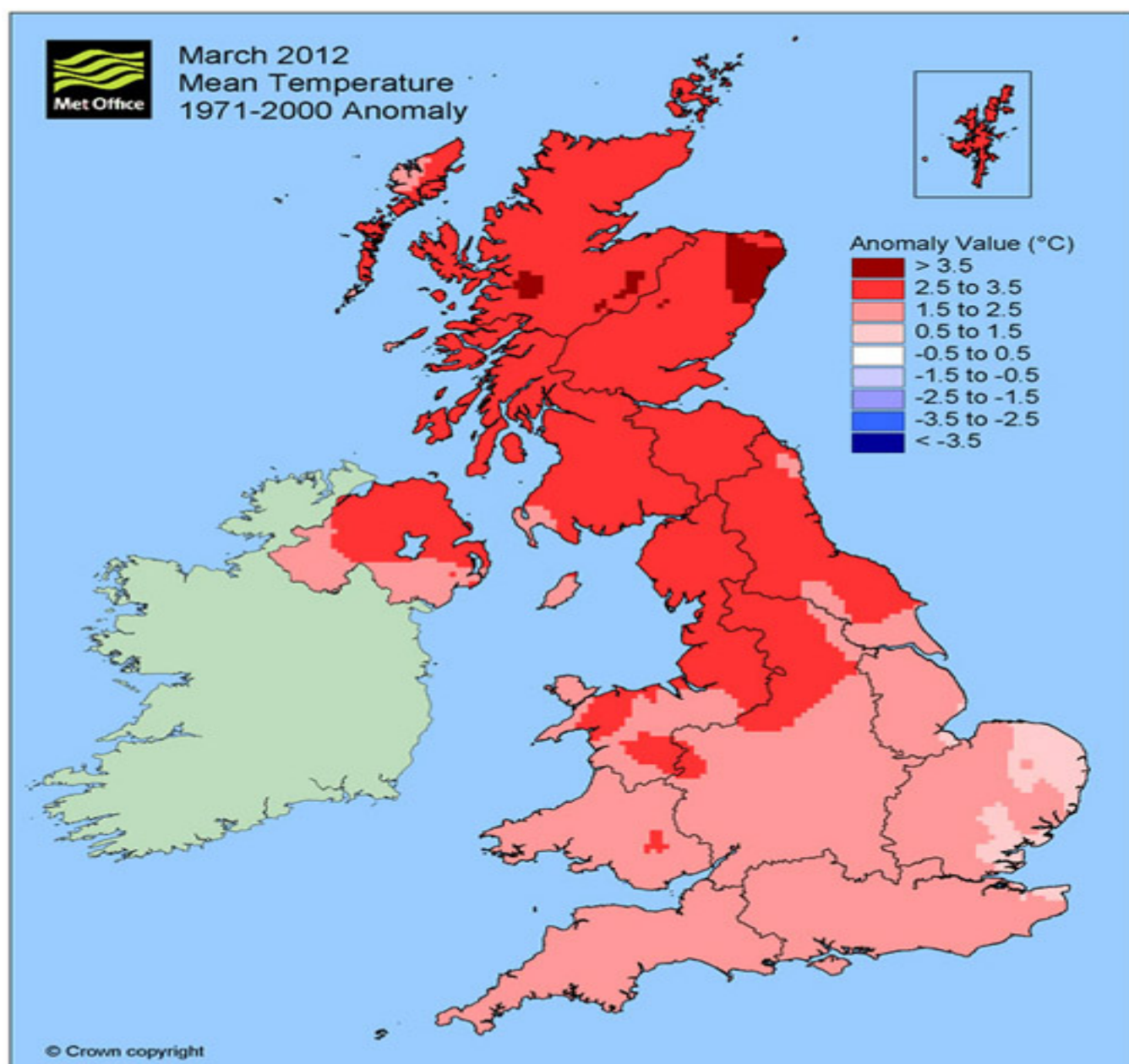
Date Created

April 2012

Third warmest March

Description

Despite the current cold and snowy weather, March 2012 was the third warmest in records dating back to 1910 and the warmest since 1957. High pressure was in charge for most of the month giving very settled and often sunny weather. The sunniest period took place during the last two weeks when we saw temperatures soar to the low 20s. On the 27th, Aboyne in Aberdeenshire recorded a high of 23.6 °C setting a new record for Scotland.

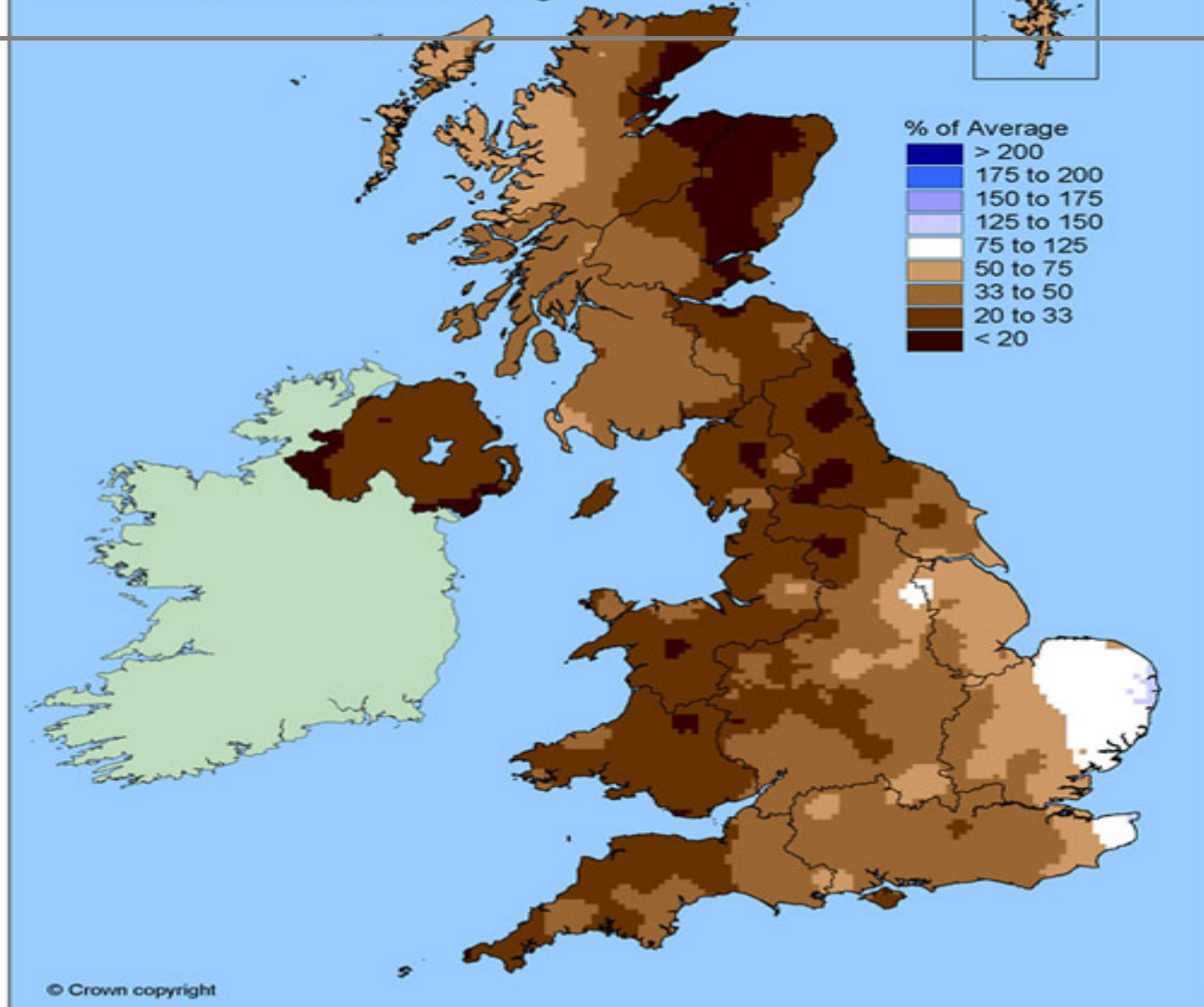


The settled conditions did not bring a lot of rain and overall only 38% of the UK's average monthly



March 2012
Rainfall Amount
% of 1971-2000 Average

Official Met Office Blog



PROVISIONAL	max temp		min temp		mean temp		sunshine d
	Act	Anm (7100)	Act	Anm (7100)	Act	Anm (7100)	Act
	degC	degC	degC	degC	degC	degC	hours
UK	12.0	3.6	3.5	1.6	7.7	2.5	156.5

England	12.7	3.4	3.4	1.0	8.1	2.2	175.4
Wales	11.9	3.3	3.8	1.3	7.9	2.4	158.8
Scotland	10.9	3.9	3.3	2.4	7.0	3.1	129.7
N Ireland	12.0	3.1	4.3	2.0	8.1	2.6	127.5

Date Created
April 2012